

INTERNATIONAL SEARCH REPORT

International Application No
PCT/JP2005/008096

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H01L41/09

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H01L H02N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 4 999 536 A (TODA ET AL) 12 March 1991 (1991-03-12) column 9, lines 3-56 figures 13A-13C -----	1,2
Y	PATENT ABSTRACTS OF JAPAN vol. 010, no. 233 (E-427), 13 August 1986 (1986-08-13) -& JP 61 066574 A (MARCON ELECTRONICS CO LTD), 5 April 1986 (1986-04-05) abstract ----- -/-	1,2

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
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- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
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Date of the actual completion of the international search

8 July 2005

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26/07/2005

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6 091 179 A (TOBE ET AL) 18 July 2000 (2000-07-18) column 2, lines 19-37 column 4, lines 10-42 column 8, lines 29-35 column 11, lines 3-14 figures 1A,1B -----	1,2
A	US 5 267 796 A (NONAKA ET AL) 7 December 1993 (1993-12-07) column 1, line 34 – column 2, line 11; figure 12 -----	3

INTERNATIONAL SEARCH REPORT

Information on patent family members

 International Application No
PCT/JP2005/008096

Patent document cited in search report	Publication date	Patent family member(s)			Publication date
US 4999536	A 12-03-1991	JP	1298964	A	01-12-1989
		JP	2650122	B2	03-09-1997
		JP	2007874	A	11-01-1990
		JP	2694157	B2	24-12-1997
		JP	2008127	A	11-01-1990
		JP	2615143	B2	28-05-1997
		JP	2084076	A	26-03-1990
		JP	2759804	B2	28-05-1998
		JP	2084077	A	26-03-1990
		JP	2759805	B2	28-05-1998
		JP	2159980	A	20-06-1990
		JP	2717827	B2	25-02-1998
		DE	68917525	D1	22-09-1994
		DE	68917525	T2	12-01-1995
		EP	0344008	A2	29-11-1989
		US	5130599	A	14-07-1992
JP 61066574	A 05-04-1986	JP	1050197	B	27-10-1989
		JP	1564285	C	12-06-1990
US 6091179	A 18-07-2000	JP	8140374	A	31-05-1996
		JP	8140376	A	31-05-1996
		JP	8280183	A	22-10-1996
US 5267796	A 07-12-1993	JP	5133416	A	28-05-1993
		DE	4237408	A1	13-05-1993
		US	5373635	A	20-12-1994